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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,262

09/07/2004

Soichiro Okubo

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08/24/2006

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EXAMINER

CHAPEL, DEREK S

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/711,262	Applicant(s) OKUBO ET AL.	
	Examiner Derek S. Chapel	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,12,23-26 and 28-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11,12,22-24 and 28-33 is/are allowed.
- 6) ☒ Claim(s) 25,26,35 and 36 is/are rejected.
- 7) ☒ Claim(s) 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/065,738.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status Of Claims

1. This Office Action is in response to an amendment received 6/6/2006 in which Applicant lists claims 11-12, 23-26, 28-32 as being amended and claims 33-36 as being new. Claims 1-10 and 13-21 were cancelled in the preliminary amendment dated 11/1/2004. Claim 27 was cancelled on 12/8/2005. It is interpreted by the examiner that claims 11-12, 23-26 and 28-36 are pending.

Specification

2. The amendments to the specification received 6/6/2006 are acknowledged and accepted. All previous objections to the specification are hereby withdrawn.

Claim Objections

3. The amendments to the claims received 6/6/2006 are acknowledged and accepted. All previous objections to the claims are hereby withdrawn.

4. Claim 34 is objected to because of the following informalities: "550 mm" should be changed to --550 nm--.

Appropriate correction is required.

Double Patenting

5. The amendments to the claims received 6/6/2006 are acknowledged and accepted. All previous double patenting rejections to the claims are hereby withdrawn.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Brady et al., U.S. Patent Number 5,294,518, of record (hereafter Brady).

8. As to claim 25, Brady teaches a DLC film characterized by having refractive indices distributed in a pattern oriented within a plane of the film (See Fig. 2 and Col. 6, Lines 24-67; It is noted by the examiner that the plane of the film is taken to be the plane of the paper with respect to figure 2 of Brady.), the pattern including a plurality of alternating first and second linear regions in the plane of the film (See Fig. 2 and Col. 6, Lines 24-67), the first regions having a first refractive index and the second regions having a second refractive index (See Fig. 2 and Col. 6, Lines 24-67).

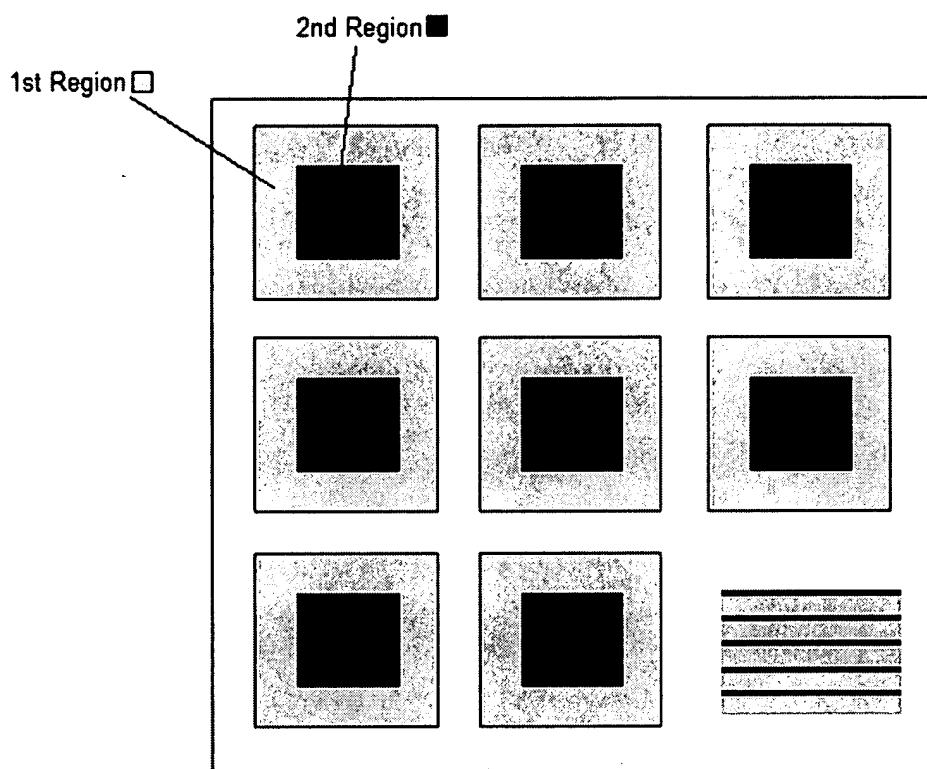
9. As to claim 26, Brady teaches the combination of claim 25, wherein the alternating first and second linear regions are oriented on a bias with respect to a thickness of the film (See Fig. 3; It is noted by the examiner that "bias" is interpreted to

include an infinite slope, i.e. an energy beam directed perpendicular to the film's thickness as shown in figure 3, since no range is given.).

10. As to claim 35, Brady teaches the combination of claim 25, wherein the first and second linear regions each have an in-plane thickness of less than about 200 nm (See Fig. 2 and Col. 6, Lines 24-30 of Brady; It is also noted that the "in-plane thickness" is taken to mean the thickness of the DLC film with respect to the plane of the paper when viewing figure 2 of Brady.).

11. As to claim 36, Brady teaches the combination of claim 25, comprising at least 10 of each of said first and second linear regions (See Fig. 2, Elements 22-29 and 31-35 which make up 13 regions of said second linear regions; It is noted that each of the areas surrounding or adjacent to a second linear region is a first linear region so there are at least 13 of said first linear regions in Brady. See Diagram 1 provided below for clarity.).

Diagram 1



Allowable Subject Matter

12. Claims 11-12, 22-24, 28-32 and 33 are allowed.
13. Claim 34 would be allowable if rewritten to overcome the objections as set forth in section 4 of this Office action.
14. The following is an examiner's statement of reasons for allowance:

Claim 11 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a method of qualitatively transforming a diamond-like carbon (DLC) film, the method comprising the steps of

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adhering a mask to a top surface of the DLC film, the mask including a transcription of the distributed refractive index structure, as generally set forth in claim 11. Claims 12, 22-24 and 28-32 are directly or indirectly dependent from claim 11 and are therefore allowable for at least the same reason as claim 11.

Claims 33 and 34 are allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a method or apparatus comprising a DLC film, wherein, with respect to light having a wavelength within a range from 550 nm to 650 nm, the DLC film has a refractive index less than 1.6 and an extinction coefficient less than 1×10^{-3} , as generally set forth in claims 33 and 34.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

15. Applicant's arguments, see page 10 section 8 of the remarks, filed 6/6/2006, with respect to claim 11 have been fully considered and are persuasive. The rejection of claim 11 has been withdrawn. However, it is noted that the arguments regarding claim 25 have been fully considered and not found to be persuasive so the rejection of claim 25 is made final.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

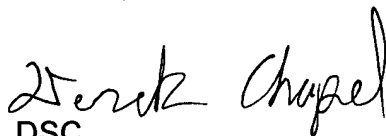
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek S. Chapel whose telephone number is 571-272-8042. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DSC
8/17/2006


Arnel C. Lavaris
Primary Examiner
8/21/06